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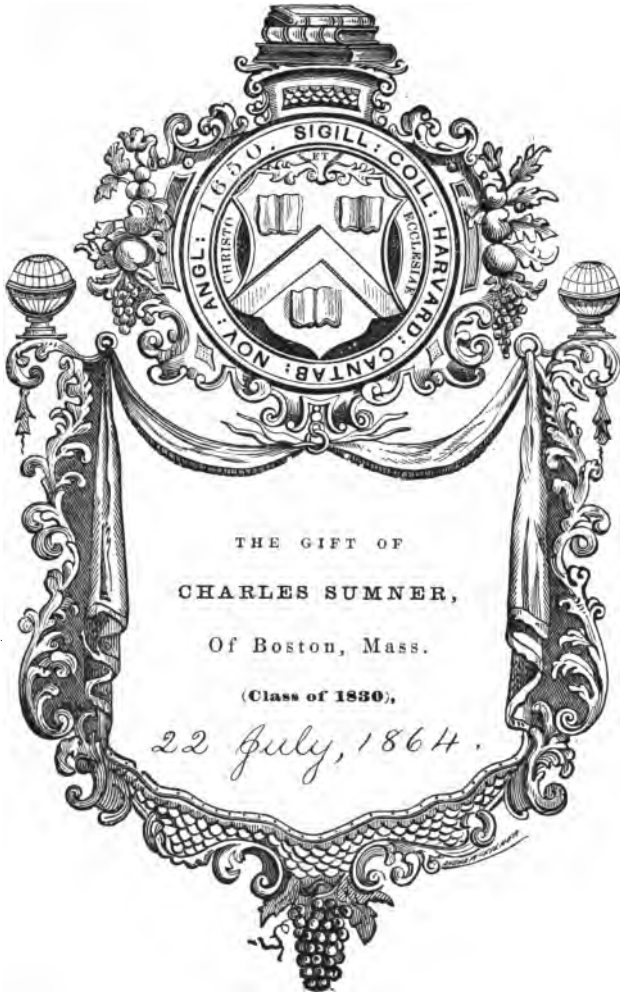
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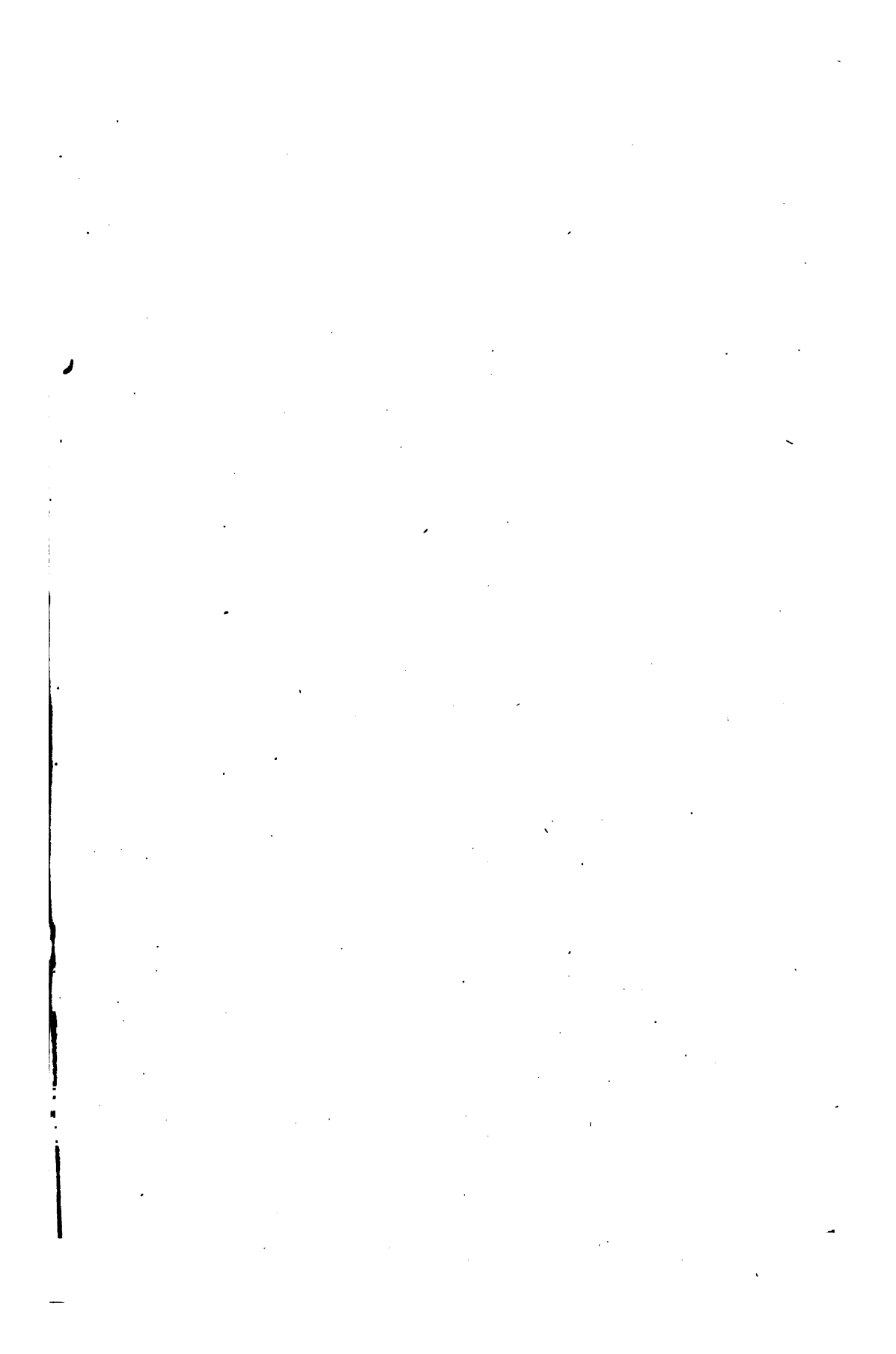
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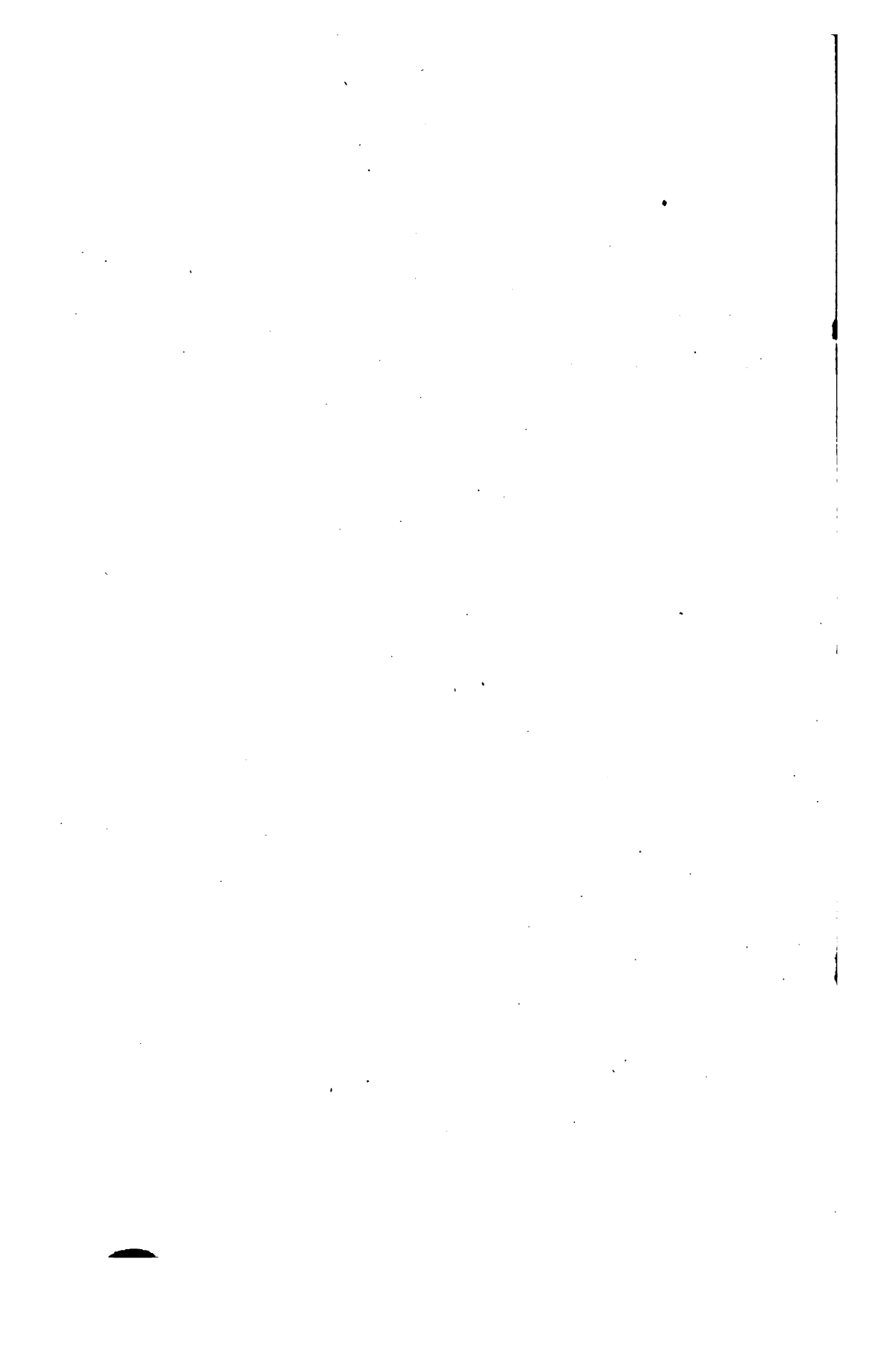
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War 4495.5

Vol. 1873.







William J.  
COLONEL MANN'S

Infantry and Cavalry Accoutrements.

PATENTED DECEMBER 8, 1863.

DESCRIPTION WITH ILLUSTRATIONS.

REPORTS OF ARMY AND NAVY BOARDS.

LETTERS FROM LIEUT.-GEN. U. S. GRANT,

AND OTHER DISTINGUISHED OFFICERS.

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New-York :

JOHN A. GRAY & GREEN, PRINTERS, STEREOTYPERS, AND BINDERS,

FIRE-PROOF BUILDINGS,

CORNER OF FRANKFORT AND JACOB STREETS.

1864.

War 4498.64

War 4495.5

1864, July 22.

Gift of

Hon. Chas. Sumner,  
of Boston.

(Class of 1830.)

## DESCRIPTION OF CUTS.



FIGURE 1.

Back view of mounted trooper, with Colonel Mann's improved accoutrements, showing clearly the manner in which the weight of the sabre, suspended by the short strap *B*, and the weight of the pistol *C*, is entirely borne on the shoulders by the belts *A A*. These, attached to waist-belt directly above pistol-holster and point of suspension of sabre, and in front to cartridge-box, which serves as a counter-balance, sustain the entire weight of the arms and ammunition on the shoulders, leaving the abdomen and loins free from any pressure of waist-belt. This gives the trooper a neat, even-shouldered, soldierly appearance.



FIGURE 1.

## FIGURE 2.

Front view of dismounted trooper, showing the shoulder-belts *AA* attached to cartridge-box *B*. These belts cross on the back, and attach to waist-belt over sabre and pistol, as shown in figure 1.

The shoulder-belts of these accoutrements, looping through rings of waist-belt, are adjustable, but, once fitted to a soldier, are not unhooked—the belts being slipped over the head, in putting on or taking off; only the waist-belt in front is unloosed.

## FIGURE 3.

Infantry soldier, with Colonel Mann's improved accoutrements and knapsack. The knapsack *A*, with the great-coat *B*, is suspended squarely upon the shoulders by the broad straps *CC*, attached to the shoulder-belts of the accoutrements *DD* by means of the hooks *EE*, which fasten in eyes on the shoulder-belts. These shoulder-belts are securely riveted, and sewed down the back of cartridge-box, forming loops for the waist-belt to pass through, keeping the box firm and close to the body. These belts, passing over the shoulders, cross on the back and loop into *D*, rings set in waist-belt some inches apart on back. With the knapsack off, or in fighting order, the weight of cartridge-box, *F*, is borne equally disposed on both shoulders, and sixty rounds, the capacity of the box *F*, is carried easily. When the knapsack is slung, the weight of the cartridge-box, though not as great, yet from its position fully balances a well-filled knapsack, keeping it well up on the plane of the back, above the point of the shoulders, where it is carried with comparative comfort. The knapsack is fastened at the bottom firmly to the waist-belt by means of two straps, shown in fig.



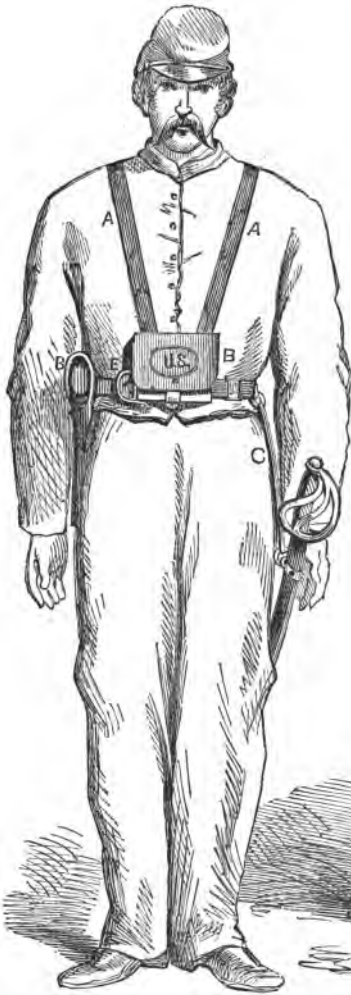


FIGURE 2.

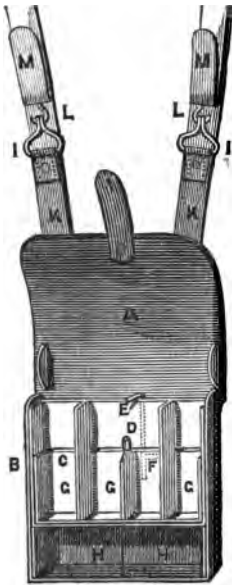


FIGURE 3.

ure 5 as *A A*, looping through rings in the belt. This prevents any movement of knapsack, even in running.

With these accoutrements, the soldier's arms and chest are free for action. The action of no organ is interfered with, and no muscles are compressed; the whole weight is directly across the shoulders. The broad cross-belt of the old accoutrements, compressing the chest, and preventing free respiration, is dispensed with; also the straps of knapsack passing under the arms, which have always been found so oppressive.

FIGURE 4.



Infantry cartridge-box, with flap raised, and front removed, showing the improved magazine. This consists of a plain tin case, large enough to contain forty cartridges. Within this is a case only half the depth of the outer one, and which is a trifle smaller, to slide within easily. This is first filled with twenty rounds, which form the base for the upper twenty rounds, filling the magazine. When the upper twenty is used out in action, the smaller interior box, with its twenty rounds, is raised by the finger in the ring *D*, and is held in place by turning the thumb-piece *E*, bringing the arm *F* under the bottom of the small case, which holds it firmly until cartridges are used. This is but the work of an instant, and saves the long delay, trouble, and often loss of tins and ammunition incident to transferring the twenty rounds from lower chambers of old magazine to

the upper ones; *G G G* are partitions to divide the cartridges.

This cartridge-box is made deep enough to contain two packages, ten rounds each, below the magazine. *H H* shows these packages, forming a reserve ammunition. The magazine rests on shoulders on the sides of the box, and is not disturbed by the absence of the packages below.

This figure further shows the manner in which the knapsack-straps are fastened, when the knapsack is slung, to the shoulder-belts of the cartridge-box. *I I* are brass loops or eyes attached to the belts *K K*, which receive the hooks *L L*, attached to the knapsack-straps *M M*. The knapsack is slung in this manner much quicker than in the old way.

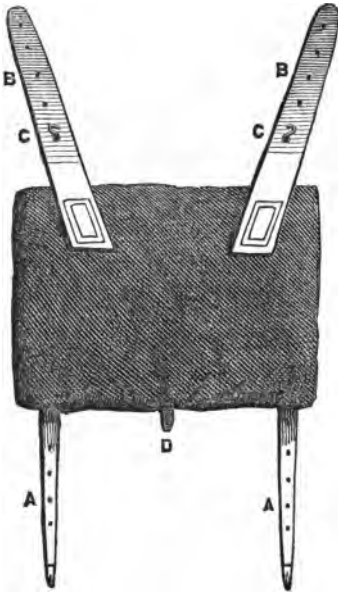


FIGURE 5.

FIGURE 5

Is a knapsack with Mann's attachment. *B B* are the broad shoulder belts; *C C* the hooks to fasten to the shoulder-belts of cartridge-box. *A A* are two straps which loop through rings in waist-belt, to fasten bottom of knapsack. *D* is a strap to fasten together the two parts of the knapsack.

## HISTORY OF THE INVENTION.

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WHILE for the past twenty years, since Colonel Colt first gave to the public his great arm, a large share of the inventive genius of the country has been directed to the development of the *materiel* of war, and more especially has the matter been the all-absorbing subject of invention since the present war; yet one very important portion of the outfit of an army seems to have been quite overlooked. We have had innumerable and most ingenious inventions of arms, both heavy and small, and projectiles, even to explosive musket-balls and "Greek fire," improvements in horse equipments, in camp and garrison equipage, in almost every thing in both the Ordnance and Quartermaster's Departments, except the accoutrements and equipments of the men themselves. The cartridge-box, and the manner of wearing it, are the same that our fathers of 1812 had. The knapsack, with its miserable attachments, is the same our brave fellows marched over the rough paths of Mexico with; and though probably one million of each of these articles have been made since the outbreak of the rebellion, still the old pattern has been closely adhered to—no one has suggested a better one.

This has not been because the subject was not an important one, for all are well aware how essential these articles are, and every soldier has remarked the many imperfections of the old style; but by chance

the remedies have not heretofore occurred to any one, or at least none have been developed.

The very arduous campaign of the last season, together with several extensive raids, in which he had taken a part, impressed upon the inventor, then serving with Kilpatrick's division of the cavalry corps, army of Potomac, the importance of an improvement in the accoutrements of the cavalry soldier. The old style seemed greatly deficient in capacity for ammunition, as upon all expeditions it was necessary to carry a large quantity of ammunition in the saddle-bags, which was often spoiled and wasted, invariably so if the weather was damp. The inventor's own experience, and the opinion of several able medical officers, convinced him of the injury to the health of the soldier, and the consequent loss to the service of many men, occasioned by the great weight tightly suspended on the loins and abdomen of the cavalry soldier. Conversation with many prominent cavalry officers strengthened his view as to the advantage of means of carrying, in a secure manner, on the person of the soldier, a greater amount of ammunition, and induced him to give the matter active thought and experiment.

While it was desirable to carry more ammunition, it was evident it could not be done, borne in the old manner. The desideratum seemed to be a cartridge-box of large capacity, and new method of slinging the accoutrements, so that the great weight of the sabre, pistol, and large amount of ammunition, could be easily borne. A model was devised and tested, the inventor wearing it himself for some time on active duty, and carrying twelve (12) pounds of ammunition, which was borne with reasonable ease. It was submitted to the examination of a number of officers in the field, and strongly approved. Experiments with this led to at-

tention to the infantry accoutrements, and a new set, together with new attachments of knapsack, was made and tried, which promised to be a good improvement.

In December, samples of the improved accoutrements, for both infantry and cavalry, were submitted to the Departments in Washington, and a Board of officers of experience, of the old army, was appointed to examine and test the invention. This Board reported strongly in its favor, upon which two thousand (2000) sets were made for trial in the field, which is now being had with every prospect of great success. During the winter, the inventor has visited different portions of the army, submitting the invention to officers for their opinion and suggestions. And here the inventor would acknowledge his obligations to the many officers with whom he has met, both for the kind attention they have given him and his invention, and for the many useful suggestions he has received, which have aided in perfecting the improvement. Particularly is he indebted to many officers of the old army, who, from their long experience in campaigning, were able to, and have most cheerfully given him practical ideas relating to the wants of the service, which have been most valuable to him. All have kindly encouraged him in the work of introducing the improvement into service.

## MERITS CLAIMED FOR THIS INVENTION.

## INFANTRY ACCOUTREMENTS.

THE weight of ammunition is borne equally on both shoulders, giving the soldier a square, soldierly appearance, instead of the tendency to elevate one shoulder, as with the old style.

The soldier is relieved of the severe oppression of the old shoulder-belt across the chest, interfering with free respiration. The weight is wholly on shoulders; and yet by passing the waist-belt through the loops on back of the cartridge-box, it is held firm, and no thumping motion is experienced in running, as is with the old. The box is worn in front, a far more convenient place than on hip, as in old style; in fact, with the old accoutrements, the soldier in action, if possible, slides the box to the front.

Habitually wearing the box in front, forms a very complete shield, covering the most fatal part of the body, and will, beyond a question, *in battle save twenty (20) per cent of the lives lost* without it. The statistics of fatal wounds will show that a greater per cent than this are within the space covered by this box. This alone is sufficient reason for the adoption of the plan.

The box has a capacity of sixty (60) rounds, which is of the greatest consequence. That number is always ordered carried when expecting action. The old box

contains but forty rounds. The extra twenty must be carried in the pockets, and is almost invariably wasted. It is believed that fully one half of the ammunition issued, in both cavalry and infantry service, is lost from boxes deficient in size and faulty magazines. This new box is not cumbersome; in fact, is scarcely larger than the old—the additional capacity being obtained by economy of room inside.

Especial merit is claimed for the new magazine. By this, the entire forty rounds are available without removing the tin, as in old box, and the delay and trouble of transferring the twenty cartridges from lower chambers to upper. Often in the excitement of battle, ammunition is wasted in transferring, and more often the transfer is made to the pocket, and the tin thrown away. The new magazine being in one piece, smooth, and whole on the outside, will not become fast in box, as the old so generally does.

For full explanation of this, reference is made to the cuts, and attention called to the reports of the Marine and Augur Boards.

The new attachments for the knapsack to be used with these accoutrements, is perhaps the greatest improvement of all, as it will be the greatest relief to the soldier. It is not necessary to expatiate on the faults of the old knapsack. Every soldier knows that the evil is almost unbearable, and that in every continuous march of three days, twenty (20) per cent of the army are stragglers, and hence not ready for action, from the oppression of the knapsack. In the new attachment, the weight of knapsack is borne *on* the shoulders, not *under* the arms, as in old; the straps which cut and gall the arm in the old are dispensed with, as are the straps crossing the breast, which interfere so much with the breathing. By this new attachment, in con-



junction with the shoulder-belts of the cartridge-box, the entire weight which the soldier carries is well and evenly balanced on the two shoulders, and is borne on broad straps squarely across the shoulders. The knapsack is kept well up on the plane of the back, above the point of the shoulders, and will not settle into the hollow of the back, which renders the old so tiresome. Perfect freedom of action of the arms and chest is secured.

The bottom of the knapsack is firmly secured to the waist-belt. So well is the weight balanced on the soldier in the new manner of slinging the accoutrements, that in temporary rest while marching, the soldier will stand erect, instead of taking the stooping posture which he must with the old style.

#### CAVALRY ACCOUTREMENTS.

Statistics in the Medical Department show that about one half of all the men that are lost to the cavalry service from disability are so disabled by rupture or hemorrhoids, most of which cases are directly attributable to the great weight—from ten to twelve pounds—of the sabre, pistol, and ammunition, suspended by the waist-belt across the loins and abdomen. This belt must be made tight-fitting, to sustain such weight, and the fatigue, pain, and actual injury to the soldier which this must produce during the long marches, often much of the way at the trot, will be appreciated by all upon a moment's reflection. There are many soldiers who are not strong enough about the body to bear this at all; and hence with half our cavalry you will see the sabre strapped to the saddle, and the pistol either the same, or thrust into the boot. In civil life, nine men out of ten wear suspenders to their pantaloons. And why? Simply because they are

not able to bear the oppression of the pantaloons girt sufficiently tight to sustain their weight. If the weight of the pantaloons can not be borne, how can ten or twelve pounds of ammunition and arms be carried on precisely the same principle by the cavalry soldier? The new style of accoutrements here proposed remedy the same evil of the old, that the suspenders do of the pants worn without them. By reference to the cuts and explanations, it will be seen that they act exactly in the same manner as suspenders of pantaloons. The ammunition worn in front counter-balances the pistol and sabre, and the weight of the whole is entirely borne equally disposed on the shoulders, where a man is strong and able to bear a load, and the belt is left perfectly loose, so that there is not an ounce of pressure on the loins or abdomen. Not only does this fully relieve the soldier of the weight of the old, but so strong are the shoulders, and so nicely are the weights adjusted, that with these accoutrements, double the amount of ammunition may be carried with ease. This is most valuable to the cavalry man, as in this service, troops are often for a long time separated from trains and depots, and should have on their persons a large amount of reserve ammunition. These improved cartridge-boxes being made of sizes just adapted to any particular ammunition, permitting it to be closely packed, more than double the capacity of the old boxes is obtained, without materially increasing the size, and hence the box is not cumbersome. The three boxes, carbine cartridge-box, pistol-box, and cap-box of the old set, are in this combined in one, making the soldier's accoutrements more compact, and giving him greater freedom of action. The box being attached to shoulder-belts, and the cap-box to the cartridge-box, there is no danger of loss of boxes. Many an officer's

ordnance return is short cap and cartridge-boxes, without his being able to fix their loss. Being small and loose on belt, they often become detached and lost. The box being worn in front, is far more convenient for handling the cartridges than in the old set, where it is worn on back, almost out of possible reach. Worn in front also affords a protection to the body in action, as in the infantry accoutrements. In the old set, the pistol-holster being slipped loose on the belt, is constantly working back on the belt, and annoying the soldier, by interfering with the cantle of the saddle. This is prevented in the new set, as the holster is placed on belt in front of the chape and ring of the shoulder-belt; and while it will work well to the ring, bringing the weight in proper place, it will not interfere with the saddle.

The shoulder-belt sustaining the weight of the pistol, the waist-belt is not sagged out of shape, as is soon the case with the old style.

In both infantry and cavalry, the use of all plates, save a single small one for waist-belt, is dispensed with, saving a great weight to soldier, and much trouble to him and to his officer in his ordnance accounts. Instead of plate on box, a neat stamp is pressed into the leather.

In conclusion, it is submitted that in addition to their substantial merits, these accoutrements, both infantry and cavalry, are neater and simpler in construction than the old, and when on the person of the soldier, add greatly to his appearance.

REPORT OF A BOARD OF THE MARINE CORPS, ORDERED TO EXAMINE AND TEST THE CARTRIDGE-BOX MAGAZINE OF COLONEL MANN'S NEW ACCOUTREMENTS, TO WHICH THE ATTENTION OF THE COMMANDANT OF THE CORPS HAD BEEN CALLED BY PETER HIGGINS, Esq., OF BOSTON, A GENTLEMAN WHO HAS TAKEN GREAT INTEREST IN THE DEVELOPMENT OF THESE IMPROVEMENTS.

ORDER CONVENING BOARD.

HEADQUARTERS MARINE CORPS, }  
WASHINGTON, December 5, 1863. }

GENTLEMEN: You are hereby constituted a board to carefully test an alteration in the cartridge-box, submitted by Mr. Peter Higgins, and report whether, in your opinion, it is an improvement upon the box now in use, and whether you recommend its being substituted for the old one.

I am very respectfully yours,

(Signed)

JOHN HARRIS,  
Colonel Commandant.

Major AUG. S. NICHOLSON, }

Captain ALAN RAMSAY, }

Lieutenant McLANE TILTON, }

United States Marines Headquarters.

REPORT.

WASHINGTON, D. C., 9th December, 1863.

SIR: In obedience to your order of the fifth instant, we have, to the best of our ability, carefully tested the alteration in the magazine of the cartridge-box submitted by Mr. Peter Higgins, and are of the opinion it is a decided improvement upon the one now in use, and recommend that it be adopted for the Marine Corps. The great advantage it has over the old magazine is, that it does away with the necessity of transferring the

cartridges from the lower to the upper magazine, after the latter have been exhausted, and which, with the magazine now in use, not only causes delay, but almost invariably more or less of the cartridges are dropped; and we are further of the opinion that in very cold weather the cartridges in the lower magazine of the present box would be unavailable, as men whose hands were benumbed with cold could not make the necessary transfer.

We are, very respectfully,

Your obedient servants,

(Signed)

AUG. S. NICHOLSON,  
Major U. S. M. C.

A. RAMSAY,  
Captain Marines.

McLANE TILTON,  
First Lieutenant U. S. M. C.

Colonel JOHN HARRIS,  
Commandant U. S. Marine Corps,  
Headquarters, Washington, D. C.

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COLONEL HARRIS'S LETTER TO THE SECRETARY OF THE  
NAVY, RECOMMENDING THE ADOPTION OF THE IM-  
PROVEMENT.

HEADQUARTERS MARINE CORPS, }  
WASHINGTON, 11th December, 1864. }

SIR: Mr. Higgins, of Boston, has submitted to me an alteration in the magazine of our cartridge-box, which I submitted to a Board of Officers to examine, and report whether or not it is an improvement upon the one now in use; a copy of which report I herewith inclose to the Department, and I respectfully request authority to adopt it, as I think it a decided improvement.

I will also thank the Department for authority to dispense with the bayonet-belt, now in use in the Corps, and to attach the bayonet-scabbard to the waist-belt, as the one now exhibited.

I have the honor to be,

Very respectfully your obedient servant,

(Signed)

JOHN HARRIS,  
Colonel Commandant.

The Hon. GIDEON WELLES,  
Secretary of the Navy.

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LETTER FROM THE HONORABLE THE SECRETARY OF THE  
NAVY, AUTHORIZING THE ADOPTION OF THE IMPROVE-  
MENT.

NAVY DEPARTMENT, 24th December, 1864.

SIR: Your letter of the eleventh instant, with inclosure, has been received.

The Department authorizes you to adopt in the United States Marine Corps the improvement in the magazine of the cartridge-box submitted by Mr. Higgins, of Boston, and approved by the Board of Examiners; also to dispense with the bayonet-belt now in use, and attach the bayonet-scabbard to the waist-belt, as recommended by you.

Very respectfully,

(Signed)

GIDEON WELLES,  
Secretary of the Navy.

Colonel JOHN HARRIS,  
Commandant Marine Corps, etc.

[In accordance with the above, this improved cartridge-box is now being supplied to the Marine Corps.]

REPORT OF BOARD ORDERED BY MAJOR-GENERAL C. C. AUGUR, COMMANDING DEPARTMENT OF WASHINGTON, FOR EXAMINATION AND TEST OF COLONEL MANN'S ACCOUTREMENTS.

ORDER CONVENING BOARD.

HEADQUARTERS DEPARTMENT OF WASHINGTON, }  
 TWENTY-SECOND ARMY CORPS, }  
 December 10, 1863. }

A Board, to consist of Colonel J. N. G. Whistler, Second New-York Artillery, Captain A. J. Alexander, Third United States Cavalry, and Assistant-Surgeon William Thompson, United States Army, is appointed to meet at ten o'clock A.M., December eleventh, 1863, at the Headquarters of the Cavalry Bureau, Washington, D. C., to report upon certain improved accoutrements for the cavalry and infantry soldier, presented by Colonel W. D. Mann, Seventh Michigan Volunteer Cavalry.

The Board will report upon the improved accoutrements as a sanitary measure, the practicability of adapting the improvement to the equipments now in use, the probable expense of so doing, and the comparative merits of the present accoutrements and those proposed.

By command of Major-General AUGUR.

(Signed) J. H. TAYLOR,  
 Chief of Staff and Assistant Adjutant-General.

REPORT.

The Board met pursuant to the above order, all the members being present, and having thoroughly and carefully examined into the advantages claimed by Colonel W. D. Mann, for his improved cartridge-box and accoutrements, respectfully report:

That in the opinion of the Board, it is a very great improvement on the accoutrements now in use in every respect claimed by the inventor, and the Board would therefore most respectfully submit, as a part of their report, the communication of Colonel W. D. Mann, herewith inclosed, which they indorse in every particular.

COLONEL MANN'S COMMUNICATION REFERRED TO ABOVE.

WASHINGTON, D. C., December 12, 1863.

*To the President and Members of Board convened to examine and Report upon Mann's Improved Accoutrements and Equipments :*

GENTLEMEN : I have the honor to respectfully invite your attention to the following advantages claimed for my improved accoutrements and equipments for cavalry and infantry—samples of which are herewith submitted. But first permit me to mention a few of the points in which the accoutrements now in use are found to be faulty.

As the cavalry accoutrements are now made, the entire weight—some ten or twelve pounds—of arms and ammunition is borne upon the waist-belt, which, to sustain the load, must be tightly fitted, thus bringing a severe pressure upon the abdomen and over the kidneys, the weakest parts of the body.

Many men can not bear the belt, and the strongest, from the compression and jerking motion of the sabre when riding, find it exceedingly oppressive and fatiguing.

I believe medical men regard the tight belt, with its weight compressing and bearing down on the bowels, as the chief cause of rupture, hemorrhoids, and kindred diseases that totally disable so many of our cavalrymen.



The cavalryman carries three boxes for ammunition—the carbine cartridge-box, pistol-box, and cap-pouch—which, with the pistol-holster, form a complete girdle of appendages to his belt, much interfering with the free exercise in the manual. The carbine-box must be carried on the back, a very inconvenient place to handle cartridges in loading.

The present carbine-box, though large and clumsy, contains but twenty rounds, while the rapid shooting-arms now in use, and the fact that cavalry often go on expeditions that for some time preclude the possibility of replenishing their stores of ammunition from depots or trains, demand that the soldier should carry a much larger supply.

Still, even the box of twenty rounds now carried is too much to add to the belt already weighted with the sabre and pistol; and soldiers generally attach it to the saddle, inconvenient to use when mounted, and often left behind when the troop is dismounted, and hurried to the front to fight on foot. The cap-pouch, being small and loose on belt, is often lost. These are some of the faults of the present set of cavalry accoutrements.

In the infantry, the box is carried with all the weight bearing on one shoulder, and becomes very wearisome on a long march.

The cartridges in upper chambers exhausted, it is difficult to remove the tins, from the position of the box on back or side; and often in taking them out, the cartridges are spilled and lost.

It is a delicate task, in the heat of battle, to handle each cartridge, to transfer from bottom to upper chamber, and more frequently the soldier transfers to his pocket, and if the tin is not conveniently returned, it is thrown away—a fact illustrated by the numerous tins to be found on every battle-field.

The cartridge-box hanging loose below belt, by its shaking about, particularly on the "double-quick," much ammunition is spoiled.

As with cavalry, the cap-pouch is very liable to be lost. With some ninety thousand (90,000) sets accoutrements returned to New-York for repairs, I believe there were but some five thousand cap-pouches, the rest having been lost.

In the attachment of the knapsack, the weight—from twelve to twenty pounds—largely bears across the breast, preventing the free action of the lungs, and soon becoming exceedingly oppressive.

If the breast-straps are loosed, the weight falling on the straps under the arms, galls and cuts the front part of shoulder until it becomes a torture, and the knapsack dropping down, soon weighs uncomfortably across the small of the back. Along the road of a march we always see hundreds of stragglers whose only excuse is inability to carry knapsacks, and which comes, not from its weight—for any man can carry fifteen or twenty pounds, if properly adjusted—but from the bad manner of slinging.

And now I come to speak of the points in my improvement by which, I trust, these faults are remedied.

The first and great improvement consists in removing, in both arms, the weight, whatever it may be, from the belt to the shoulders—from the weak to the strong part of the body.

In the cavalry accoutrements, placing the ammunition in front, suspended by the shoulder-straps, passing over the shoulders and crossing behind, and attaching to belt over the points of suspension of the sabre and pistol, the weight of the whole mutually balancing, is borne on the shoulders—disposed equally on each—

straightening the man up, and affecting him much as a pair of shoulder-braces. Not one ounce is borne on the waist-belt, which may be perfectly loose. A ruptured man can in this way carry his arms.

In my cartridge-box I have combined these three old boxes, making one more compact, and bringing all the ammunition together in front of the person—far more convenient for loading, and offering less hindrance to any of the exercises than did so many boxes in the old style.

By attaching the cap-pouch to right side of cartridge-box, I make it more convenient of access, and obviate the danger of loss.

My box contains fifty rounds Sharp's ammunition and thirty rounds Colt's—more than twice the number carried in the two old boxes; and yet from the manner of slinging, this greatly increased weight is not found inconvenient, and enables the soldier to carry on his person a supply of ammunition sufficient for a long raid.

Only the box and shoulder-belts are wanted to furnish the cavalry already equipped in the field with this improvement, as they can be used with the present sabre-belt. Full sets of accoutrements on my plan can be furnished cheaper than the present set.

In the infantry accoutrements great convenience in loading is gained by carrying the boxes in front, and it in no measure interferes with the manual.

The box attached by shoulder-belts and waist-belt is kept from shaking and damaging ammunition. By an improvement so simple, that it can by no possibility get out of order, in the tins of the box, the ammunition is changed from the bottom to the upper chambers, without removing tins or handling cartridges, thus saving greatly in time, and preventing the possibility of loss of ammunition or tins, as in the old box.

Two belt-plates of the old accoutrements are dispensed with, saving expense, and lessening the burden of the soldier. The brass loop on waist-belt is dispensed with. It is a very inconvenient thing.

The inside flap of cartridge-box is left off, as wholly useless, and outer flap cut smaller, making a neater and more convenient box.

The weight of ammunition is borne equally on the shoulders, and by means of my knapsack attachment is made to partially support that uncomfortable though necessary load in its proper place on the shoulders. The straps across breast and under arms are dispensed with. The weight and pressure is equally well over the body. As a soldier remarked: "It rests all over me, and I can stand erect as a soldier." It leaves the action of the arms and lungs free.

As shown by one sample, by sending simply a pair of shoulder-belts, with hooks and loops, to men in the field, the improvement can be used with the present set of accoutrements and equipments. A very important advantage is gained by carrying the cartridge-box in front of the person; covering as it does the most vital part, or the part where wounds are most fatal, it will, undoubtedly, save many lives.

My accoutrements will in no case cost more than those now in use, and if they will in any degree conduce to the comfort or efficiency of the soldier, I shall hope to see them speedily adopted. Begging indulgence for the great length of my communication, the whole is most respectfully submitted.

I am, Gentlemen, with great respect,

Your very humble servant,

(Signed)

W. D. MANN,

Colonel Seventh Michigan Cavalry.

For the purpose of ascertaining the advantages of the tin box for cartridges, submitted by Colonel W. D. Mann, a trial was made by the senior member of the Board, when it was ascertained that the firing of forty (40) rounds of blank cartridges from this box occupied four and one half ( $4\frac{1}{2}$ ) minutes less time than from the box now in use.

The Board would, therefore, recommend that one thousand (1000) cavalry and the same number of infantry accoutrements be made and issued to troops in the field. It is suggested by the Board that only one company or squad in each regiment be provided with them, in order that the advantages over the present accoutrements, which are claimed, may be more fully tested before being introduced generally into the service.

(Signed) J. N. G. WHISTLER,  
Colonel Second New-York Artillery.  
A. J. ALEXANDER,  
Captain Third Cavalry.  
WILLIAM THOMPSON,  
Assistant Surgeon United States Army.

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INDORSEMENT BY MAJOR-GENERAL C. C. AUGUR, COM-  
MANDING DEPARTMENT OF WASHINGTON, ON THE  
ABOVE REPORT.

HEADQUARTERS DEPARTMENT OF WASHINGTON, }  
December 15, 1863. }

As there is no question of the desirability of improving the present style of carrying knapsacks and cartridge-boxes, and as the Board—one of them an old infantry officer, who has seen a great deal of service\*—

\* Colonel Whistler, Major in the regular army.

speaks so decidedly in favor of having these improvements tested by the only satisfactory means—service—I respectfully recommend that a sufficient number be made to make a satisfactory experiment, as to whether they are an improvement or not.

(Signed) C. C. AUGUR,  
Major-Gen. Com. Department of Washington.

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INDORSEMENT BY BRIGADIER-GENERAL GEORGE D. RAMSAY, CHIEF OF ORDNANCE.

ORDNANCE OFFICE, December 19, 1863.

In view of the favorable report by a Board of experienced officers on Colonel Mann's infantry accoutrements, taken in connection with the cartridge-box, etc., suggested by him for cavalry service, one thousand sets of which have been ordered, it is respectfully recommended that one thousand sets of these infantry accoutrements be ordered for trial in service, provided they can be obtained on terms deemed satisfactory.

(Signed) GEORGE D. RAMSAY,  
Brigadier-General,  
Chief of Ordnance.

*The above recommendation was approved by the Secretary of War. The accoutrements were made, and are now in process of trial in the field.*

REPORT OF BOARD ORDERED BY THE PROVOST-MARSHAL  
GENERAL.

ORDER CONVENING THE BOARD.

WAR DEPARTMENT,  
PROVOST-MARSHAL GENERAL'S OFFICE, }  
WASHINGTON, D. C., January 6, 1864. }

A Board of Inspection will convene to-morrow, seventh instant, at ten o'clock A.M., at Cliffburn Barracks, Washington, D. C., for the purpose of inspecting and reporting upon a new style of straps and belts for supporting the knapsack and accoutrements of a soldier.

A full report of this inspection will be made in writing by the junior officer of the Board, and forwarded to this office.

DETAIL FOR BOARD.

Colonel Oscar V. Dayton, Invalid Corps.  
Colonel George A. Woodward, Invalid Corps.  
Colonel John Ely, Invalid Corps.  
Lieutenant-Colonel L. S. Palmer, Invalid Corps.  
Surgeon J. H. Baxter, United States Volunteers.  
Lieutenant George R. Walbridge, Invalid Corps.  
M. N. WISEWELL,  
Colonel and Assistant to Prov.-Mar. Gen.

REPORT OF BOARD.

HEADQUARTERS DEPOT CAMP INVALID CORPS, }  
CLIFFBURN BARRACKS, D. C., }  
January 7, 1864. }

A Board of Inspection, convened this day in accordance with the above order, all the members, as above detailed, being present.

The Board having made a careful and minute examination of the knapsacks and accoutrements laid be-

fore them, and having demonstrated the advantages gained by this improvement over the present style, by fitting them to soldiers of the Invalid Corps, and experimenting with the knapsacks, accoutrements, and ammunition strapped upon them, we have the honor to submit the following report :

The invention of Colonel W. D. Mann, of Seventh Michigan Cavalry, for supporting the knapsacks and accoutrements of the soldier, and the ease with which the ammunition and accoutrements can be carried with this improvement, are, in our opinion, decidedly superior to any invention of the kind we have had occasion to meet. The following advantages are derived in reference to infantry troops: the transferring of the great weight of the arms and ammunition from the waist-belt, and relieving the bowels and small of the back, and placing that weight equally and judiciously upon the shoulders, is a desideratum greatly needed, long wished for, and fully obtained by this invention. The attachment which supports the knapsack relieves the chest from the compression to which it is subjected by the present style of straps, gives the soldier the free and entire use of his arms. It also raises the knapsack well up on the shoulder, throwing the poise of the same away from the shoulder-blades, giving to the wearer an erect and soldierly appearance, instead of compressing the chest and causing the stooping position given by wearing the present style of knapsack supporters and attachments; we find also by so relieving the waist, bowels, and back, it will tend in a great measure to lessen the many cases of hernia with which we every day meet among the troops in the field, and will also enable those who are already suffering from that cause to bear with ease the weight around their waist, which, with the old style of



belts and straps, would be insupportable. We also find that the magazine connected with the cartridge-box is a decided advantage over the present style, for several reasons.

It carries sixty rounds of cartridges in a space that has been so economically divided, that it occupies but a trifle more room than is required in the present style. It also disposes of the ammunition in such a way that it is almost impossible to waste or lose any, as the chambers containing it do not have to be removed from the box till forty rounds have been disposed of; by a simple and ingenious device the lower chamber containing the cartridges can be drawn to the top of the cartridge-box, and assumes the same position that the first tier of cartridges occupied before any were used.

We also find that the wearing of the cartridge-box in front, with these improvements, enables the soldier to load and handle his cartridges with all the facility necessary. The cartridge-box being so worn in front, we also find, covers a portion of the body, in which, if wounded, would cause almost certain death; so the cartridge-box worn as indicated serves a double purpose, as a receptacle for ammunition and a shield for the soldier; at the same time it does not interfere with the soldier in going through the manual of arms, or using his musket in any position he may be placed in.

There was also exhibited to the Board the same improvements connected with the accoutrements of men doing duty in the cavalry service, carrying with it the same advantages, and reducing the three boxes now used to one, carrying twice as much ammunition, (eighty rounds,) and in a more compact form.

The Board would most respectfully call your attention to the equipments, supporters, and improvements intended for the use of second battalion men of the

Invalid Corps. The straps or supporters are so constructed that they cross the shoulders, making the bearings draw directly upon the upper portion of the shoulder, without any strain upon the breast, and straps behind and underneath the knapsack draw that portion of the load down directly above the hips, making the knapsack hang perfectly straight and at the same time firm and secure, without any of the swinging motion which the knapsack (when strapped according to the present style) acquires when under the "double-quick," or during any quick or sudden movements. The waist-belt at the same time was left perfectly loose, and although experiments were made upon two of the enlisted men belonging to the Invalid Corps, (who were transferred to the corps on account of ruptures received in the service,) these men carried the full amount of ammunition and accoutrements, forty rounds of cartridges, pistol, sword, holster, etc., yet they felt no inconvenience from the load, but are unable to wear a waist-belt and carry the same amount of equipments with the present style of straps used as supporters. The inventor assured the Board that the improvements connected with his knapsack and supporter can be furnished the Government much cheaper than the present style used. He also claims that he can furnish the Government with these improvements at a very small cost; taking the present wide belts, and by cutting them diagonally and lengthwise, can obtain the supporters used across the shoulders; and by furnishing two hooks and two short straps, to fasten the lower end of the knapsack down behind, and by transferring his tin magazines to the present cartridge-box, you will have most of the advantages which his improvements present.

The Board found many advantages connected with these improvements, which it is impossible to note on paper in full detail; but after a thorough examination

of the men, while carrying these equipments, and a close inspection of the defects of the present style of knapsacks, we are of the unanimous opinion that the advantages claimed by the inventor are fully sustained, and, if used generally by the army, we are of the undoubted opinion that it will be of incalculable benefit to the soldier in the field, decreasing the list of disabled soldiers to a large extent, giving great ease to the wearer, great convenience to the user, and giving a capacity to carry a larger amount of ammunition with much more ease than the present method, and with a great saving of expense to the Government. We do, therefore, most cheerfully recommend the improvements of Colonel W. D. Mann to all connected with the service, and we are confident that when once they have obtained a general use throughout the army, the advantages gained will be so apparent, and the health of the soldiers so vastly improved, that no body of troops will be considered fully equipped without them.

Dated Washington, D. C., }  
 January 11th, 1864. }

(Signed) OSCAR V. DAYTON,  
 Colonel Nineteenth Regiment Invalid Corps.

GEO. A. WOODWARD,  
 Colonel Twenty-second Regiment I. C.

JOHN ELY,  
 Colonel Twenty-first Regiment I. C.

FRED. S. PALMER,  
 Lieutenant-Colonel Invalid Corps.

J. H. BAXTER,  
 Surgeon U. S. V., Chief Medical Officer of P. M. G.  
 Bureau.

GEORGE R. WALBRIDGE,  
 First Lieutenant Invalid Corps.

INDORSEMENT AT PROVOST-MARSHAL GENERAL'S OFFICE.

PROVOST-MARSHAL GENERAL'S OFFICE, }  
 INVALID BUREAU, }  
 WASHINGTON, D. C., Jan. 12, 1864. }

Respectfully forwarded to the Provost-Marshal General. Approved, recommended that the within named equipments be adopted for the Invalid Corps.

(Signed) M. N. WISEWELL,  
 Colonel and Assistant to Provost-Marshal General.

This Board was appointed to determine as to the fitness of the equipments named for the *Invalid Corps*. If the Ordnance Department can furnish them, I recommend that they be issued to the Invalid Corps.

(Signed) JAMES B. FRY,  
 Provost-Marshal General.

January 25th, 1864.

**ACTION OF THE MILITARY COMMITTEE, HOUSE OF REPRESENTATIVES, OF WHICH MAJOR-GENERAL SCHENCK IS CHAIRMAN.\***

COMMITTEE ON MILITARY AFFAIRS,  
WASHINGTON CITY, March 23, 1864. }

On motion of Mr. Blair, of Missouri, the following preamble and resolution were adopted :

*Whereas*, Colonel Wm. D. Mann, Seventh Michigan cavalry, has invented certain changes and improvements in cavalry and infantry accoutrements, which have been examined by the Committee on Military Affairs.

*And Whereas*, Said accoutrements appear, upon inspection, to add greatly to the efficiency of the soldier in battle and on the march; therefore,

*Resolved*, That the Secretary of War be requested to cause said accoutrements to be inspected and tested by the proper Bureau, to the end that the Government may avail itself of such improvement, if adopted.

A true copy.

(Signed) GEO. D. KELLOGG,  
Clerk.

\* The majority of this Committee were formerly general officers in the United States service, and have had much experience with troops in campaign. They gave this invention a very thorough examination, and were unanimous in their opinion of its great merits.

## TESTIMONIALS.

## LETTER FROM LIEUTENANT-GENERAL GRANT.

HEADQUARTERS MILITARY DIVISION }  
 OF THE MISSISSIPPI, }  
 NASHVILLE, TENN., Feb. 6, 1864. }

*Colonel W. D. Mann, Seventh Michigan Cavalry:*

COLONEL: An examination of the cavalry and infantry accoutrements exhibited by you satisfies me that the change from the old style is such as to warrant their adoption throughout the army as fast as new accoutrements have to be supplied. I think no more of the old should be made until yours are fully tested.

The improvements in the cartridge-box are undoubted, and should be adopted at once.

The change in the belt, and the manner of carrying the knapsack and cartridge-box, I believe will demonstrate itself to be a great improvement, and if it does not, the soldier will naturally make the change in carrying these, suggested by experience.

Yours, etc.,

U. S. GRANT,  
 Major-General.

## INDORSEMENT OF MAJOR-GENERAL THOMAS.

Having carefully examined Colonel W. D. Mann's cartridge-boxes and knapsack attachment, I fully concur in the above recommendation for adoption into the service.

GEO. H. THOMAS,

Major-General U. S. V. Commanding.

HEADQUARTERS DEPARTMENT CUMBERLAND, }  
 CHATTANOOGA, TENN., Feb. 11, 1864. }

## LETTER FROM MAJOR-GENERAL FRANK P. BLAIR, JR.

WASHINGTON, D. C., }  
 April 7, 1864. }

*Hon. C. A. Dana :*

DEAR SIR: I have examined Colonel Mann's new cartridge-box and knapsack for infantry and cavalry accoutrements. That they are a vast improvement on the old accoutrements for infantry and cavalry, no man can doubt who has made a march with troops or seen an engagement. They ought to be introduced into the service without delay, and I think you will confer the greatest benefit to the service by requiring that they be fairly tried, and if found to be what is expected, by causing them to be adopted.

I am, very respectfully,

Your obedient servant,

FRANK P. BLAIR, JR.

## INDORSEMENT OF GENERAL FARNSWORTH.

I have carefully examined these accoutrements, and am fully convinced of their many merits, and heartily concur in the above.

J. L. FARNSWORTH.

## LETTER FROM MAJOR-GENERAL LOGAN.

HEADQUARTERS FIFTEENTH ARMY CORPS, }  
 HUNTSVILLE, ALA., Feb. 14, 1864. }

*Colonel W. D. Mann, Seventh Michigan Cavalry :*

SIR: I have carefully examined your infantry and cavalry accoutrements, and am decidedly of the opinion that they are a very great improvement on those now in use. They have many advantages—to wit, amount of ammunition carried, the facility with which it can be taken from the box, the resting of the weight on the shoulders, the protection in battle given to a sol-

dier's stomach by the cartridge-box being placed in front, and in other respects vastly superior to the old

I would respectfully recommend that they be adopted and furnished the army as rapidly as possible; and that if adopted, the capacity of the boxes for sixty rounds infantry should not be reduced. I am satisfied that sixty (60) rounds is not more than should be at all times carried by infantrymen.

Respectfully,

JOHN A. LOGAN,  
Major-General.

LETTER FROM THE CHIEF OF CAVALRY.

CAVALRY BUREAU, WAR DEPARTMENT, }  
January 20, 1864. }

COLONEL: I have carefully examined your accoutrements for the foot and the mounted soldier, and I am convinced that they are far superior in every respect to those now in use. By enabling the soldier to carry, in a safe and secure manner, the amount of ammunition required in orders to be borne by the men when going into action, and at the same time providing a way in which this may be done without inconvenience or injury to the man, you have effected a great good, which, without considering the other advantages of your accoutrements, is of sufficient importance to cause their adoption. I would respectfully recommend that all requisitions for Colonel Mann's accoutrements be furnished. Very respectfully,

Your obedient servant,

(Signed) K. GARRARD,  
Brigadier-General, Chief of Cavalry

Colonel W. D. MANN,  
Seventh Michigan Cavalry, Washington.



## OPINION OF MAJOR-GENERAL SLOCUM.

HEADQUARTERS TWELFTH CORPS, }  
 ARMY OF THE CUMBERLAND, }  
 TULLAHOMA, TENN., Feb. 12, 1864. }

I have examined the accoutrements presented by Colonel Mann, and believe them to be a decided improvement over those now in use. They are more simple in the arrangements for fixing them to the body, more firm when properly put on, and have greater capacity. A box containing sixty (60) rounds has been much needed, as it is usual to take that number on the person of the soldier. I hope they may be adopted.

H. W. SLOCUM,

Major-General Commanding Twelfth A. C.

## LETTER FROM MAJOR-GENERAL JOHN M. PALMER.

HEADQUARTERS FOURTEENTH ARMY CORPS, }  
 DEPARTMENT OF THE CUMBERLAND, }  
 CHATTANOOGA, Feb. 10, 1864. }

I have carefully examined the arrangements proposed by Colonel W. D. Mann, Seventh Michigan cavalry, for knapsacks and cartridge-boxes for infantry soldiers, and am greatly pleased with it.

Its superiority over the ordinary arrangement is conspicuous in these respects:

1st. It allows capacity for sixty rounds of ammunition, and forty (40) rounds at least are more accessible to the soldiers than by the present plan.

2d. The shoulders bear the weight, which is also so adjusted as to balance the knapsack, which is a very great advantage.

3d. The position of the box affords some protection to the body of a soldier *facing the enemy*—a consideration not to be entirely overlooked.

I base my preference for plan proposed, however, upon the ground that the hips of the soldier are by it relieved from the weight of the cartridge-box, as it is the result of my observation that the present mode of carrying it has done much injury, especially to new troops. (Signed) JOHN M. PALMER,  
Major-General.

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## LETTER FROM GENERAL ROBERT S. GRANGER.

HEADQUARTERS U. S. FORCES, }  
NASHVILLE, TENN., Feb. 10, 1864. }

I have this day examined equipments brought to my office by Colonel W. D. Mann, Seventh Michigan cavalry, for inspection. I think they are a decided improvement upon the old pattern. The capacity of the cartridge-box presented by Colonel Mann being an excess of the old cartridge-box, I think is an advantage.

I would respectfully request that they be issued to the Eighteenth Michigan infantry and the One Hundred and Second Ohio, these regiments having applied to me for them. (Signed) R. S. GRANGER,  
Brigadier-General.

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## LETTER FROM MAJOR-GENERAL ROUSSEAU.

HEADQUARTERS, DISTRICT OF NASHVILLE, }  
NASHVILLE, TENN., February 16, 1864. }

*Colonel W. D. Mann, Seventh Michigan Cavalry :*

SIR: Having examined your infantry and cavalry accoutrements, I am of opinion those for the infantry are the best I have ever seen. I need not detail the advantages, as they are apparent to the most casual observer. I urgently commend them to the authorities



shoulders, leaving the lungs and arms free, and at the same time providing for raising and depressing the knapsack at pleasure.

The change in the cartridge-box, so as to carry sixty rounds without materially increasing the size of the box, and removing the position from the hip to the front, is also a great improvement. In all our armies the men are required in active campaigns to carry forty rounds in the box and twenty on the person. The waste of this extra ammunition from rains, perspiration, friction, and other causes, from the loose method of carrying it, has been and must be enormous, so long as the present practice is continued.

In the improvement of Colonel Mann, the cartridge-box is placed in front—more convenient for use—serving as a counterpoise to the knapsack, and so adjusted as to bring the weight upon both shoulders, and to obviate the swinging motion of the box in rapid movements.

There are other small improvements in Colonel Mann's accoutrements which I think valuable.

(Signed) A. S. WILLIAMS,  
Brigadier-General Commanding First Division,  
Twelfth Army Corps.

LETTER FROM THE CHIEF OF ORDNANCE OF THE DEPARTMENT OF THE CUMBERLAND.

OFFICE CHIEF OF ORD., HEADQUARTERS D. C., }  
CHATTANOOGA, TENN., Feb. 23, 1864. }

*Colonel W. D. Mann, Seventh Michigan Cavalry,  
Metropolitan Hotel, Washington, D. C.:*

SIR: In my opinion the new sets of infantry and cavalry accoutrements, as presented by you, are an improvement in many respects on the accoutrements now used in service. You have increased the capacity of

the cartridge-box, without rendering it too large or cumbersome, which is, I think, an advantage, as the soldier is nearly always required to carry more cartridges than the present cartridge-box will hold, and on the march is very apt, and does very frequently, throw this extra amount away.

The tin magazine of the infantry cartridge-box is well arranged for withdrawing the cartridges, and is not so liable to be thrown away as the two pieces of the magazine of present cartridge-box. The whole weight of the accoutrements and ammunition is supported by both shoulders, which appears to me will be much less fatiguing and injurious than where the weight is borne by one shoulder and the hips. The whole set is more compact, and I think more durable than the one now in use.

Very respectfully,

Your obedient servant,

F. G. BAYLOR,

Captain and Chief of Ordnance D. C.

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LETTER FROM BRIGADIER-GENERAL CUSTER OF THE  
CAVALRY CORPS.

WASHINGTON, D. C., April 6, 1864.

COLONEL W. D. MANN: SIR: Having carefully examined *your improved* cartridge-box, with reference to its introduction into our service, I most heartily recommend its adoption to the War Department. I consider it equally adapted to both infantry and cavalry, and most particularly to those organizations which are armed with the breech-loading fire-arm; for the reason that, owing to the rapidity of firing, the supply of ammunition capable of being carried in the "old" cart-

ridge-box soon becomes exhausted, an evil which would be remedied by the use of your improved box.

Very respectfully, etc.,

G. A. CUSTER,  
Brigadier-General U. S. Vols.

WHAT GENERAL SPRAGUE, ADJUTANT-GENERAL STATE OF NEW-YORK, AND AN OLD ARMY OFFICER, SAYS OF THE NEW ACCOUTREMENTS.

GENERAL HEADQUARTERS STATE OF NEW-YORK, }  
ADJUTANT-GENERAL'S OFFICE, }  
ALBANY, March 28, 1864. }

I have carefully examined Colonel W. D. Mann's accoutrements for infantry and cavalry, and with great pleasure bear testimony to the ingenuity, economy, and efficiency of the arrangement, as adding greatly to the comfort and ability of the soldier, and would respectfully recommend the adoption of them into the public service.

JOHN T. SPRAGUE,  
Lieutenant-Colonel U. S. Army and  
Adjutant-General State of New-York.

LETTER FROM THE ADJUTANT-GENERAL OF THE STATE OF TENNESSEE.

ADJUTANT-GENERAL'S OFFICE, }  
STATE OF TENNESSEE, }  
NASHVILLE, February 15, 1864. }

*Col. W. D. Mann, Seventh Michigan Cavalry :*

COLONEL: I have carefully examined your improved cartridge-boxes and the method of carrying them. As regards the boxes, there can be no difference of opinion as to their superiority, both as regards capacity and convenience of using them. I am convinced that the new method of attaching the cavalry cartridge-box is a

most decided improvement, and believe that experience will prove that the new manner of attaching the cartridge-box and knapsack is the best yet devised. I believe your boxes will totally supersede those now in use.

I shall make requisitions immediately for a supply for two regiments, one of infantry and one cavalry.

I am, Colonel, very respectfully,

ALVAN C. GILLAM,

Brigadier-General U. S. Vols.

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OPINION OF SURGEON-GENERAL QUACKENBUSH, OF THE STATE OF NEW-YORK.

I HAVE carefully examined the accoutrements exhibited to me by Colonel W. D. Mann. I regard them superior to any I have seen previously. The point of suspension being the shoulders instead of the waist, they are carried more comfortably, and for this reason the general introduction of these accoutrements into the service must conduce to the comfort and health of the soldier.

J. V. P. QUACKENBUSH,

Surgeon-General State N. Y.

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LETTER FROM COLONEL SMITH, AN OLD VETERAN OF MEXICO.

OFFICE OF THE U. S. COMMANDER,  
DETROIT, MICH., March 23, 1864. }

*Colonel Wm. D. Mann :*

MY DEAR COLONEL: I have examined with great care and satisfaction your cartridge-boxes and attachments, for cavalry and infantry, and I am clearly of the opinion that they are a great improvement on any thing of the kind I have seen—the increased capacity of the boxes, without enlarging them, the convenience

of their interior arrangement, and perhaps, most important of all, the desirable distribution of the weights resting upon the shoulders, instead of pressing down upon the loins; and then, the attachment which holds them so firmly as to prevent the great movement while in rapid motion, injuring the cartridges as well as bruising the soldier.

I should be pleased to see them introduced into general use in the army.

I am, Colonel, truly yours,  
 J. R. SMITH,  
 Lieut.-Colonel U. S. A. and Military Com.

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LETTER FROM BRIGADIER-GENERAL DAVIES, CAVALRY CORPS.

HEADQUARTERS SECOND BRIGADE,  
 THIRD DIVISION CAVALRY CORPS, }  
 January 25, 1864.

*Colonel W. D. Mann, Seventh Michigan Cavalry:*

COLONEL: I examined to-day with much interest the new pattern of cavalry accoutrements that you are desirous of introducing into the service. My opinion, so far as I feel at liberty to judge from the appearance of the accoutrements, is favorable, and I should be much pleased if I could have the opportunity of testing them practically in my brigade by actual service. If I could have, say twenty or thirty sets, I could in a week form an accurate judgment as to their value, and I think the experiment is well worth trying, as our present accoutrements are subject to many objections that are evidently removed in yours.

Respectfully,  
 H. E. DAVIES, JR.,  
 Brigadier-General Commanding.



## LETTER FROM BRIGADIER-GENERAL SMITH.

HEADQUARTERS THIRD DIVISION,  
 FIFTEENTH ARMY CORPS,  
 DEPARTMENT AND ARMY OF THE TENNESSEE,  
 HUNTSVILLE, ALA., Feb. 13, 1864. }

*Colonel W. D. Mann, Seventh Michigan Cavalry :*

COLONEL: Having examined the cavalry and infantry equipments submitted by you, I do not hesitate to express my opinion of their superiority over those now in use. You relieve the men of the weight pressing upon their abdomen and hips, and transfer it entirely to their shoulders, enabling them to move with greater facility, beside carrying their accoutrements more compact. I hope to see them adopted for the army of the United States.

Very respectfully yours,

JOHN E. SMITH,

Brigadier-General.

## LETTER FROM COLONEL DEMING, M. C.

WASHINGTON, D. C., April 14, 1864.

*Brig.-General Geo. D. Ramsay, Chief of Ordnance:*

SIR: I have the honor to recommend to your especial consideration Colonel Mann's improvements in accoutrements, and hope you will give him an order sufficient to enable the Department to properly test the same.

I have personally examined these accoutrements and am entirely satisfied that they will add largely to the efficiency of the soldier.

Very respectfully your obedient servant,

HENRY C. DEMING,

Of Military Committee.

I concur.

A. McALLISTER,

Of Military Committee.

## PRESENT STATE OF DEVELOPMENT.

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THIS invention has during the past six months been examined by more than two thousand officers in different divisions of the army, from the Mississippi to the Potomac, who have been unanimous in their expressions of the value it would be to the army. Many suggestions as to minor features have been received, and when found good have been acted upon, until now it is believed that in construction these accoutrements are perhaps as perfect, regarding durability, convenience of use, and neatness, as it is possible to make them.

From the first they have been received with great favor by the Ordnance Department, which has lent every reasonable assistance to their development, having early, upon its being brought to notice, purchased a number for trial in the field. And here the inventor is happy to take occasion to say that he is under more than ordinary obligation to the Chief of Ordnance and his able Assistant, for the patient attention, in the midst of their laborious duties, they have given him and his invention, and the earnest efforts they have made to have it fairly tested.

So far as yet tried the reports are most favorable, and the Department have under consideration proposals for large numbers for general issue. Several handsome orders from States for the equipment of State troops have been and are now being filled.

A manufactory has been established, prepared to fill

promptly all orders from the General, State, or Foreign Governments.

## APPEAL TO OFFICERS.

Every officer, from the Commanding General down to the company officer, not only feels it his duty, but his pleasure and policy, to do all in his power for the comfort and efficiency of his men.

Believing, after the many trials these accoutrements have had, and the many strong indorsements of our ablest officers, that they will not only relieve the soldier of many of the inconveniences and much of the fatigue incident to the use of the present style of equipments, and add greatly to his efficiency in action, but will also prevent a large per centage of the fatal wounds received in battle, thus making their adoption the greatest possible benefit to the soldier, the inventor makes free to earnestly ask all officers to practically interest themselves in securing the immediate introduction of this improvement to general use throughout the army.

In accomplishing this, all can aid. Our Government, and especially that department the particular duty of which is to supply the accoutrements of the army, is most willing to give to the soldier every improvement that will in any manner add to his comfort or efficiency. All that is first desired is to know that it is really a good and practical improvement. That is all that is wanted in this case. It is true that very strong testimony has already been given in their favor, but as it is a matter of very great importance to change the entire accoutrements of the army, it is desirable to have the very general expression of the entire army, and particularly of those officers who are most closely brought in contact with the men in the field doing the work,

and who have the best chance of noting the faults or merits of any particular part of the soldier's equipment.

It is believed that there are many features of the present style of equipment of the soldier in which it is sadly defective, and yet of which the proper department have never received a single complaint. Instance the tins forming the magazine of the cartridge-box. Every soldier has remarked the inconvenience of getting them out or in the box, and consequently the great number thrown away on every battle-field; also the delay and trouble, attended often with loss of ammunition, of transferring the cartridges, in the heat of battle, from the lower to the upper chambers.

These are faults not met with in ordinary garrison duty, and hence are not brought under the notice of officers of the Ordnance Department; they can only be fully appreciated by officers in the field, and yet from them no complaints have been received at the Department.

This is not because there are not grounds for objections, nor is it because of indifference on the part of officers, but perhaps may be attributed to two causes: very active and laborious duty in field since this war, and a want of knowledge on the part of many volunteer officers as to whom to make reports, or as to the propriety of a report upon the imperfections of any equipments issued to them.

It is hoped that every officer will at once direct his attention to those matters, and make proper reports in reference to objectionable features of the military equipments. Certainly there can be no impropriety in this, and the service may be greatly benefited.

Officers who believe that the principles of this improvement in accoutrements are good, are respectfully

requested to give them a careful and thorough examination and trial. Commanders of regiments can make requisition for a few sets for the purpose of trial, preparatory to applying for them for general issue.

These requisitions for trial will undoubtedly be filled. Upon such trials, let a careful official report be made which, if favorable, will have great weight in securing their general adoption into the service.

Every officer who regards this an improvement, and interests himself, can aid in giving his men the advantages of it. Proper requisitions made through the regular channels, for these accoutrements, either for purpose of trial or for full equipment, will undoubtedly be promptly filled.

Requisitions should be made on the Quartermaster's department for knapsacks with "Mann's attachment" to accompany all issues of infantry accoutrements.

In drawing for cavalry accoutrements, mention should be made of the name of carbine or rifle used, as cartridge-boxes are made adapted to the different kinds of ammunition.

The accoutrements of many of the old regiments are now so much worn that they should be condemned and turned in. Where officers have examined or tested these new accoutrements, and are satisfied of their merits, let them get a regular inspection of their old accoutrements by an inspecting officer, and if condemned send a copy of the report with their requisitions for the improved accoutrements.

They should also state their opinion of the new style, and the facts of examination or trial, upon which their opinion is based.

## TO THE STATE GOVERNMENTS.

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MANY of the States are about equipping their own State forces or militia; and the attention of State officials is most respectfully invited to these accoutrements before they purchase the old style. Lieutenant-General Grant in his letter says: "No more of the old style should be made."

Some of the States have already purchased quite extensively of these.

Upon application, samples of these accoutrements will be forwarded to State officers for examination or trial. They are also respectfully referred to their officers in the field, many of whom have seen these fully tested there.

Infantry accoutrements are made with cartridge-box of capacity for sixty or forty rounds as desired; cavalry are made to suit any particular arm in use.

The prices of these accoutrements will be very little if any above the old style. The saving in ammunition by the use of the improved magazine, instead of the old pattern, in a campaign of three months will more than pay the difference in their cost. The additional cost of this magazine over the old<sup>r</sup> will be the only difference in price of these accoutrements, and the old style of same capacity of box.

Many of the States have large numbers of the old pattern accoutrements on hand that are more or less

worn or deficient in some parts. These, by overhauling and some repairs, can be made serviceable, and by supplying the new magazine made to fit old box, and a pair of shoulder-belts, which buckle into the old box in place of present cross-belt, these old sets of accoutrements may be made to possess substantially all the merits of the improved pattern, and will cost but a small sum. All information on this subject, as well as proposals for furnishing the new accoutrements, can be obtained by addressing the Inventor,

COLONEL W. D. MANN,

Box 5359 New-York.





